HERITAGE THERMAL SERVICES

HERITAGE THERMAL SERVICES
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East Liverpool, Ohio 43920-3400
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OHSAS 18001: 2007
ISO 14001: 2004
ISO 9001: 2008

July 30, 2015

VIA UPS & OEPA AIR SERVICES

Mr. Erik Bewley
OEPA-DAPC-NEDO
2110 E. Aurora Road
Twinsburg, OH 44087

Mr. George Czerniak
U.S. EPA Region V
Mail Code AE-17J
77 West Jackson
Chicago, IL 60604

RE: HERITAGE THERMAL SERVICES
SEMI-ANNUAL STARTUP, SHUTDOWN, AND MALFUNCTION REPORT &
SEMI-ANNUAL EXCESS EMISSIONS AND CMS REPORT

Greetings:

Please find enclosed a written report entitled *Semi-Annual Startup, Shutdown, and Malfunction Report* and *Semi-Annual Excess Emission and CMS Report* for Heritage Thermal Services. These reports are required by 40 CFR 63.10 and cover the time period of January 1, 2015 through June 30, 2015.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are certain penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Thank you and if you have any questions or comments, please call me at the above number.

Sincerely,

Stewart Fletcher
General Manager
Heritage Thermal Services

SEMI-ANNUAL STARTUP, SHUTDOWN, AND MALFUNCTION REPORT
&
SEMI-ANNUAL EXCESS EMISSION AND CMS REPORT

For

Heritage Thermal Services

July 30, 2015

Section I – General Information

A. Facility Information

Facility ID:	02-15-02-0233
Responsible Official's Name / Title:	Stewart Fletcher General Manager
Street Address:	1250 Saint George Street
City:	East Liverpool
State:	Ohio
Zip Code:	43920
Facility Name:	Heritage Thermal Services
Facility Local Contact Name:	Vincent Waggle Environmental Engineer

B. Relevant standard(s) or other requirement(s) that is/are the basis for this report:

63.10(d)(5)(i) – Periodic Startup, Shutdown, and Malfunction Reports

C. Are you requesting a waiver of recordkeeping and/or reporting requirements under the applicable relevant standard(s) in conjunction with this report?

☐ Yes ☒ No

If you answered yes, you must submit the application for a waiver of recordkeeping and/or reporting requirements together with this report. The application for waiver should include whatever information you consider useful to convince the Administrator that a waiver of recordkeeping or recording is warranted. (63.10(f)(3)

Section II – Certification

Based upon information and belief formed after a reasonable inquiry, I as a responsible official of the above-mentioned facility, certify the information contained in this report is accurate and true to the best of my knowledge.

Stewart Fletcher, General Manager

Signature: _____ Date: 7/30/15

Section III – Startup, Shutdown, and Malfunction Reports

A. Startup, Shutdown, or Malfunction Actions

All actions taken by Heritage Thermal Services during startup, shutdown, or malfunction events during the reporting period of **January 1, 2015 through June 30, 2015.** were consistent with the procedures specified in the facility's Startup, Shutdown, and Malfunction Plan.

B. Malfunctions

Please find in the table below a list of each malfunction, the durations, and a brief description of the type of malfunction that occurred during the reporting period of **January 1, 2015 through June 30, 2015.**

See next page for completed table

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
1	THC	1/1/15 15:30	1/1/15 16:28	58.0	Malfunction Lance Plugging	Plugging of the slurry lance caused poor combustion.	Cleared lance. Restarted unit.
2	THC	1/3/15 18:07	1/3/15 18:44	37.0	Malfunction Tank Layering	Layering in T7 caused poor combustion and THC.	Reduced feeds. Restarted unit.
3	SCC Temperature	1/6/15 6:08	1/6/15 9:29	201.0	Malfunction Power Failure	UPS power failure caused incinerator shutdown.	Repaired UPS. Restarted unit.
3	RJ DP	1/6/15 6:10	1/6/15 9:26	196.0	Malfunction Power Failure	UPS power failure caused incinerator shutdown.	Repaired UPS. Restarted unit.
3	Kiln Temperature	1/6/15 6:21	1/6/15 9:12	171.0	Malfunction Power Failure	UPS power failure caused incinerator shutdown.	Repaired UPS. Restarted unit.
3	Total PB DP	1/6/15 6:21	1/6/15 8:39	138.0	Malfunction Power Failure	UPS power failure caused incinerator shutdown.	Repaired UPS. Restarted unit.
3	RJ Blowdown Flow	1/6/15 7:36	1/6/15 8:57	81.0	Malfunction Power Failure	UPS power failure caused incinerator shutdown.	Repaired UPS. Restarted unit.
4	THC	1/8/15 3:37	1/8/15 3:38	1.0	Malfunction Lance Plugging	Plugging of the organic lance caused poor combustion.	Cleaned lance. Restarted unit.
4	THC	1/8/15 3:47	1/8/15 4:19	32.0	Malfunction Lance Plugging	Plugging of the organic lance caused poor combustion.	Cleaned lance. Restarted unit.
5	SDA ECIS Flow	1/30/15 22:49	1/30/15 23:14	25.0	Malfunction ECIS Plugging	Frozen carbon caused plugging and interrupted flow.	Cleared plug. Added new carbon. Restart.
6	RJ DP	2/8/15 14:13	2/8/15 14:22	8.8	Malfunction Instrument	Damper control malfunction caused ID Fan stop.	Manually adjusted damper. Restarted unit.
7	RJ DP	2/9/15 9:24	2/9/15 10:25	61.1	Malfunction Prior AWFCO	Maintenance error caused ID fan shutdown	Restarted fan and unit
7	SCC Temperature	2/9/15 9:29	2/9/15 9:37	8.4	Malfunction Prior AWFCO	Maintenance error caused ID fan shutdown	Restarted fan and unit
7	Kiln Temperature	2/9/15 9:32	2/9/15 9:56	24.0	Malfunction Prior AWFCO	Maintenance error caused ID fan shutdown	Restarted fan and unit
8	SDA ECIS Flow	2/12/15 16:44	2/12/15 17:35	51.1	Malfunction ECIS Plugging	Wet and frozen carbon plugged feed hopper.	Cleared plug. Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
9	THC	2/13/15 23:35	2/14/15 2:25	170.1	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	RJ DP	2/13/15 23:39	2/14/15 2:28	169.1	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	SCC Temperature	2/13/15 23:45	2/14/15 2:28	163.4	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	Kiln Temperature	2/13/15 23:48	2/14/15 2:28	160.3	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	RJ Flow	2/14/15 0:05	2/14/15 2:28	143.0	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	Total PB DP	2/14/15 0:11	2/14/15 1:20	69.0	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	SDA ECIS Pressure	2/14/15 1:52	2/14/15 2:28	36.4	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
9	Scrubber ECIS Pressure	2/14/15 1:56	2/14/15 2:28	32.3	Malfunction Boiler Tube	Tube rupture caused immediate unit shutdown.	Shutdown unit. Repaired tube.
10	SDA ECIS Flow	2/17/15 4:49	2/17/15 4:55	5.7	Malfunction ECIS Plugging	Wet and frozen carbon plugged feed hopper.	Cleared plug. Restarted unit.
** The previously listed 10 malfunctions occurred within a 60-day block period and have been reviewed in accordance with 63.1206(c)(2)(v)(3)(ii). Some OPL exceedances have been counted as a singular malfunction because they were the result of single initiating malfunction. Upon review of the individual malfunctions, HTS has determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.							
1	SCC Temperature	2/18/15 17:35	2/18/15 17:43	7.8	Malfunction Instrument	Level control malfunction caused loss of coolant level and AWFCO.	Repaired level indicator. Restarted unit.
1	Kiln Temperature	2/18/15 17:37	2/18/15 17:46	9.3	Malfunction Instrument	Level control malfunction caused loss of coolant level and AWFCO.	Repaired level indicator. Restarted unit.
2	THC	2/22/15 23:18	2/23/15 0:17	58.7	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC event.	Restarted unit. Reviewed waste feeds.
3	SDA ECIS Pressure	2/26/15 14:08	2/26/15 14:39	31.3	Malfunction Instrument	Pressure gauge malfunction caused OPL loss.	Replaced gauge. Restarted unit.
3	SDA ECIS Pressure	2/26/15 20:01	2/26/15 22:26	145.1	Malfunction Instrument	Pressure gauge malfunction caused OPL loss.	Replaced gauge. Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
4	THC	3/4/15 21:24	3/4/15 22:06	42.1	Malfunction Tank Layering	Layer of material in feed tank caused poor combustion.	Reduced flow. Restarted unit.
5	SDA ECIS Flow	3/7/15 11:34	3/7/15 11:43	8.9	Malfunction ECIS Plugging	Damp carbon caused plugging and flow drop.	Cleared hopper. Restarted unit.
6	THC	3/14/15 1:00	3/14/15 1:59	60.0	Malfunction Lance Plugging	Plug in slurry lance caused poor combustion and THC.	Cleared lance. Restarted unit.
7	SDA ECIS Flow	3/15/15 19:14	3/15/15 19:25	11.0	Malfunction ECIS Motor	Bad fuse caused motor shutdown and carbon flow loss.	Replaced fuse. Restarted unit.
8	SDA ECIS Flow	3/15/15 19:26	3/15/15 20:13	47.0	Malfunction ECIS Motor	Bad fuse caused motor shutdown and carbon flow loss.	Replaced fuse. Restarted unit.
8	SDA ECIS Pressure	3/15/15 19:54	3/15/15 20:34	40.8	Malfunction ECIS Motor	Bad fuse caused motor shutdown and carbon flow loss.	Replaced fuse. Restarted unit.
9	THC	4/2/15 3:11	4/2/15 4:09	57.9	Malfunction Customer Packaging Error	Customer improperly packaged waste causing poor combustion.	Restarted unit. Contacted customer.
10	SCC Pressure	4/6/15 21:08	4/6/15 21:08	0.1	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused THC event.	Restarted unit. Reviewed waste feeds.
** The previously listed 10 malfunctions occurred within a 60-day block period and have been reviewed in accordance with 63.1206(c)(2)(v)(3)(ii). Some OPL exceedances have been counted as a singular malfunction because they were the result of single initiating malfunction. Upon review of the individual malfunctions, HTS has determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.							
1	SCC Pressure	4/9/15 13:03	4/9/15 13:03	0.1	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
2	SCC Pressure	4/9/15 16:10	4/9/15 16:10	0.1	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
3	RJ DP	4/14/15 4:56	4/14/15 5:55	59.1	Malfunction Instrument	Instrument malfunction caused unit shutdown	Replaced switch. Restarted unit.
3	SCC Temperature	4/14/15 4:58	4/14/15 5:56	58.0	Malfunction Instrument	Instrument malfunction caused unit shutdown	Replaced switch. Restarted unit.
4	THC	4/16/15 6:41	4/16/15 7:47	65.9	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
5	RJ DP	4/20/15 17:17	4/20/15 17:37	19.3	Malfunction Power Failure	Strong storm caused power loss and shutdown.	Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
5	SDA ECIS Flow	4/20/15 17:19	4/20/15 17:37	17.2	Malfunction Power Failure	Strong storm caused power loss and shutdown.	Restarted unit.
6	THC	4/20/15 18:54	4/20/15 19:54	59.9	Malfunction Line Plugging	Feed line plug/purge caused combustion upset.	Cleared line. Restarted unit.
7	SCC Pressure	4/22/15 16:05	4/22/15 16:06	1.0	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
8	ESP Field #1 Current	4/22/15 17:41	4/22/15 19:47	126.4	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/24/15 8:07	4/24/15 8:19	12.0	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/24/15 13:25	4/24/15 13:31	5.8	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/24/15 18:47	4/24/15 18:51	4.1	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	SCC Temperature	4/24/15 21:09	4/24/15 23:34	145.6	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	Kiln Temperature	4/24/15 21:21	4/24/15 23:34	133.1	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	THC	4/24/15 21:39	4/24/15 21:41	2.1	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	SDA ECIS Pressure	4/24/15 22:20	4/24/15 23:34	74.0	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	Scrubber ECIS Pressure	4/24/15 22:29	4/24/15 23:34	64.7	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	RJ Blowdown Flow	4/24/15 22:39	4/24/15 23:34	54.9	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	RJ DP	4/24/15 23:01	4/24/15 23:34	32.9	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/24/15 23:28	4/24/15 23:34	5.8	Shutdown ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
8	ESP Field #1 Current	4/26/15 21:06	4/26/15 22:57	111.2	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/27/15 5:02	4/27/15 5:53	50.8	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
8	ESP Field #1 Current	4/27/15 7:16	4/27/15 9:15	118.6	Malfunction ESP Ground Wire	ESP problems resulting from bad ground wire caused OPL issues.	Shutdown unit. Repaired ground.
9	THC	5/2/15 19:54	5/2/15 20:52	59.0	Malfunction Lance Purging	Flush of DDP line caused lance to purge and cause THC.	Cleared line. Restarted unit.
10	THC	5/6/15 14:16	5/6/15 15:16	59.9	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
** The previously listed 10 malfunctions occurred within a 60-day block period and have been reviewed in accordance with 63.1206(c)(2)(v)(3)(ii). Some OPL exceedances have been counted as a singular malfunction because they were the result of single initiating malfunction. Upon review of the individual malfunctions, HTS has determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.							
1	THC	5/13/15 3:09	5/13/15 4:07	57.9	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
2	SCC Pressure	5/13/15 20:08	5/13/15 20:09	1.1	Malfunction Clinker Fell	Large molten mass fell from kiln into quench causing pressure.	Restarted unit.
2	SCC Pressure	5/19/15 4:56	5/19/15 4:57	1.1	Malfunction Clinker Fell	Ash build-up from SCC fell into quench causing pressure.	Restarted unit.
3	SCC Pressure	5/21/15 2:04	5/21/15 2:05	1.1	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
4	SCC Pressure	5/24/15 18:29	5/24/15 18:30	1.1	Malfunction Clinker Fell	Ash build-up from SCC fell into quench causing pressure.	Restarted unit.
5	SCC Pressure Using Seals	5/25/15 14:08	5/25/15 14:08	0.5	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Investigated failure
5	RJ DP	5/25/15 14:14	5/25/15 15:11	56.9	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Investigated failure
6	THC	5/27/15 16:11	5/27/15 17:12	60.1	Malfunction ID Fan Shutdown	Shutdown of IF fan caused loss of drat and unit upset.	Restarted unit.
7	SCC Pressure	5/28/15 19:40	5/28/15 19:41	1.1	Malfunction Clinker Fell	Moderate ash fall caused system pressure spike and upset.	Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
7	THC	5/28/15 19:44	5/28/15 20:44	60.1	Malfunction Clinker Fell	Moderate ash fall caused system pressure spike and upset.	Restarted unit.
8	SCC Pressure	6/2/15 22:11	6/2/15 22:11	0.1	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Replaced UPS battery.
9	RJ DP	6/2/15 22:16	6/2/15 23:25	69.7	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Replaced UPS battery.
9	SCC Temperature	6/2/15 22:24	6/2/15 23:25	61.9	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Replaced UPS battery.
9	Kiln Temperature	6/2/15 22:29	6/2/15 23:25	56.1	Malfunction Instrument	Instrument malfunction caused ID fan shutdown	Restarted unit. Replaced UPS battery.
10	THC	6/3/15 0:36	6/3/15 1:33	56.2	Malfunction Combustion Anomaly	Unexpected and unpreventable combustion upset caused pressure spike.	Restarted unit. Reviewed waste feeds.
** The previously listed 10 malfunctions occurred within a 60-day block period and have been reviewed in accordance with 63.1206(c)(2)(v)(3)(ii). Some OPL exceedances have been counted as a singular malfunction because they were the result of single initiating malfunction. Upon review of the individual malfunctions, HTS has determined that these 10 events were not the result of a common problem and no resulting changes have been made to the SSMP.							
1	SCC Pressure	6/5/15 15:11	6/5/15 15:11	0.2	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
1	SCC Temperature	6/5/15 15:19	6/5/15 16:20	61.9	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
1	RJ DP	6/5/15 15:19	6/5/15 16:19	59.9	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
1	SDA ECIS Flow	6/5/15 15:24	6/5/15 15:25	1.1	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
1	SDA ECIS Flow	6/5/15 15:35	6/5/15 15:36	1.1	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
1	Scrubber pH	6/5/15 15:39	6/5/15 15:48	8.4	Malfunction Power Failure	Lightning from storm caused brief power loss and unit shutdown.	Power restored. Unit restarted.
2	Total PB Flow	6/9/15 11:02	6/9/15 11:35	32.8	Malfunction Scrubber Pumps	Plugging in the pump suction line caused flow loss.	Cleared line. Restarted unit.
3	SCC Pressure	6/15/15 9:59	6/15/15 9:59	0.0	Malfunction Lance Plugging	Plugging of the hi btu lance caused pressure surge.	Switched feed tank. Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
4	SCC Pressure	6/18/15 21:52	6/19/15 2:48	295.7	Malfunction Boiler Tube	Rupture of boiler tube caused loss of ID fan.	Shutdown unit for tube repair.
4	THC	6/18/15 21:57	6/19/15 2:12	255.1	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	SCC Temperature	6/18/15 21:59	6/19/15 2:48	288.9	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	Kiln Temperature	6/18/15 22:00	6/19/15 2:48	287.8	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	RJ DP	6/18/15 22:05	6/19/15 2:48	283.1	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	RJ Flow	6/18/15 22:22	6/19/15 2:48	266.0	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	RJ Blowdown Flow	6/18/15 22:33	6/18/15 22:39	6.3	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	Total PB DP	6/18/15 22:43	6/19/15 2:48	245.1	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	Total PB Flow	6/18/15 23:02	6/19/15 2:48	225.9	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	RJ Blowdown Flow	6/18/15 23:46	6/19/15 2:48	182.1	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	SDA ECIS Pressure	6/18/15 23:51	6/19/15 2:48	176.9	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
4	Scrubber ECIS Pressure	6/19/15 0:06	6/19/15 2:48	161.9	Shutdown Boiler Tube Outage	Immediate shutdown resulting from boiler tube rupture.	Shutdown unit for tube repair.
5	SCC Temperature	6/21/15 12:10	6/21/15 16:57	286.7	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	RJ DP	6/21/15 12:13	6/21/15 16:57	284.1	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	Kiln Temperature	6/21/15 12:13	6/21/15 16:57	284.1	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.

#	Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
5	RJ Flow	6/21/15 12:30	6/21/15 16:56	265.8	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	Total PB DP	6/21/15 12:49	6/21/15 14:32	103.3	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	THC	6/21/15 12:59	6/21/15 13:08	8.8	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	THC	6/21/15 13:18	6/21/15 14:54	96.0	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
5	RJ Blowdown Flow	6/21/15 15:23	6/21/15 16:57	93.8	Malfunction Instrument	Malfunction of boiler level switch caused ID Fan shutdown.	Repaired instrument. Restarted unit.
6	SCC Pressure	6/25/15 8:14	6/25/15 8:14	0.0	Malfunction Clinker Fell	Small ash fall into slag quench caused brief pressure spike.	Restarted unit. Reviewed feedstreams.
7	SCC Pressure	6/25/15 11:15	6/25/15 11:15	0.0	Malfunction Clinker Fell	Small ash fall into slag quench caused brief pressure spike.	Restarted unit. Reviewed feedstreams.
8	THC	6/27/15 17:22	6/27/15 17:40	17.7	Malfunction Lance Plugging	Plugging in sludge 2 lance caused poor combusiton.	Cleared lance. Restarted unit.
9	Total PB Flow	6/29/15 18:15	6/29/15 19:24	69.4	Malfunction Scrubber Pump	Pump malfunction caused scrubber flow loss.	Repaired pump. Restarted unit.

C. Startup, Shutdown, or Malfunction Plan Revision History

DATE	Revision Number	Comment
9/30/2003	0	Initial Plan
2/27/2004	1	ESP OPLs added. Malfunction list updated.
6/23/2005	2	Revised section on operating modes.
10/27/2006	3	RCRA Permit modifications. Malfunction list updated.
3/15/2007	4	Malfunction list updated and comments added addressing instances beyond the operator's control.
6/6/2007	5	Malfunction list updated and further comments added addressing instances beyond the operator's control.
10/16/2007	6	Corrected minor deficiencies noted by OEPA.
9/1/2008	7	Revised to reflect facility name change
6/12/2009	8	This revision included, in Section 1.6.3.1, more detailed descriptions of the most common malfunction events that occur at the facility. It also included a description of data collection procedures during times when residence time expires while an exceedance event is taking place in Section 1.6.3.
2/9/2011	9	Revision created to reflect OPL changes resulting from the MACT CPT completed in 2010. Additionally, new malfunctions were added to Table 2-2.
5/1/2011	10	Revision incorporated a discussion of the exceedance investigation process and procedures. Table 2-2 was also slightly revised to include addition malfunctions.
7/5/2012	11	Revision 11 (7/5/2012) created to improve language surrounding the reporting and documentation during startup and shutdown events.
10/15/2013	12	Revision 12 (10/15/2013) created to account for facility name change.
6/4/2014	13	Revision 13 (6/4/2014) New malfunctions were added to Table 2-2.
6/30/2015	14	Revision 14 (6/30/2015) Updated new OPLS from MACT CPT.

SEMI-ANNUAL EXCESS EMISSION AND CMS REPORT

Section I – General Information

A. Facility Information

Facility ID:	02-15-0233
Responsible Official's Name / Title:	Stewart Fletcher / General Manager
Street Address:	1250 Saint George Street
City:	East Liverpool
State:	Ohio
Zip Code:	43920
Facility Name:	Heritage Thermal Services
Facility Local Contact Name:	Vincent Waggle Environmental Engineer

B. Relevant standard(s) or other requirement(s) that is/are the basis for this report:

63.10(e)(3) – Excess Emissions and Continuous Monitoring System Performance Report

C. Are you requesting a waiver of recordkeeping and/or reporting requirements under the applicable relevant standard(s) in conjunction with this report?

☐ Yes ☒ No

If you answered yes, you must submit the application for a waiver of recordkeeping and/or reporting requirements together with this report. The application for waiver should include whatever information you consider useful to convince the Administrator that a waiver of recordkeeping or recording is warranted. (63.10(f)(3))

D. Check the box that corresponds to the reports you are submitting:

☐ Summary Report Only (Complete Sections II and IV)

☒ Excess Emission and CMS Performance Report and Summary Report (Complete Sections II, III, and IV).

Section II – Certification

Based upon information and belief formed after a reasonable inquiry, I as a responsible official of the above-mentioned facility, certify the information contained in this report is accurate and true to the best of my knowledge.

Stewart Fletcher, General Manager

Signature: _____ Date: 7/30/15

Section III – Excess Emissions and CMS Performance Report

A. Excess Emissions

1. Have any excess emissions or exceedances of a parameter occurred during this reporting period?
☒ Yes ☐ No

2. If you answered yes, complete the following table for each period of excess emissions and/or parameter monitoring exceedances, as defined in the relevant standard(s), that occurred during periods other than startups, shutdowns, and/or malfunctions of your affected source. (63.10(c)(7)-(11))

See next page for completed table.

Name	Start Time	End Time	Duration (min)	Cause (report)	Cause Description	Corrective Actions
THC	1/9/15 0:23	1/9/15 1:19	56.1	Operator Error Feed Prep	Improper feed prep caused poor combustion and THC.	Restarted unit. Reduced charge sizes.
THC	1/9/15 20:38	1/9/15 21:32	53.7	Operator Error Combustion/APCD	Operator failed to provide adequate air causing poor combustion.	Increased air flow. Restarted unit.
SCC Pressure Using Seals	1/11/15 12:29	1/11/15 12:30	0.6	Operator Error Combustion/APCD	Manual changes to burner setting caused pressure spike.	Revised burner settings. Restarted unit.
THC	2/1/15 19:35	2/1/15 20:33	57.9	Operator Error Feed Prep	Improper feed prep caused poor combustion and THC.	Restarted unit. Reduced charge sizes.
SCC Pressure Using Seals	2/9/15 9:19	2/9/15 9:23	3.7	Operator Error Maintenance Error	Maintenance error caused ID fan shutdown	Restarted fan and unit
RJ DP	2/16/15 22:12	2/16/15 22:13	0.5	Operator Error Combustion/APCD	Operator error caused exceedance of RJ OPL.	Restarted unit. Re-trained operator.
THC	3/5/15 10:55	3/5/15 11:52	56.8	Operator Error Combustion/APCD	Improper flow increased caused poor combustion.	Reduced flow. Restarted unit.
THC	4/5/15 7:40	4/5/15 8:38	57.8	Operator Error Feed Prep	Improperly prepared waste caused poor combustion.	Restarted unit. Re-trained operator.
THC	4/7/15 19:06	4/7/15 20:06	60.0	Operator Error Feed Prep	Improperly prepared waste caused poor combustion.	Restarted unit. Re-trained scheduler.
THC	4/8/15 15:24	4/8/15 16:08	44.9	Operator Error Line Flush	Operator flushed line at period of high THC.	Restarted unit. Re-trained operator.
Scrubber ECIS Flow	4/12/15 10:20	4/12/15 10:20	0.5	Operator Error Combustion/APCD	Poor maintenance caused loss of ECIS flow.	Restarted unit. Corrected procedure.
THC	4/17/15 19:58	4/17/15 20:11	13.1	Operator Error Feed Mix	Improper feed mix caused poor combustion and THC.	Restarted unit. Spaced out feeds.
THC	4/26/15 15:23	4/26/15 16:27	64.3	Operator Error Feed Prep	Improperly prepared waste caused poor combustion.	Reduced charges. Restarted unit.
THC	5/13/15 14:54	5/13/15 15:40	46.5	Operator Error Combustion/APCD	Improper lance management caused THC.	Re-trained operator. Restarted unit.
THC	5/16/15 17:16	5/16/15 18:16	60.1	Operator Error Feed Prep	Improperly prepared waste caused poor combustion.	Reduced charges. Restarted unit.

B. CMS Performance

1. Has a CMS been inoperative (except for zero/low-level and high-level checks), out of control (as defined in 63.8(c)(7)(i)), repaired, or adjusted during this reporting period? ☐ Yes ☒ No

2. If you answered yes, complete the following table for each period a CMS was out of control, repaired, or adjusted: (63.10(c)(5)-(6), (10)-(12); 63.8(c)(8).

CMS Type	Mfg	Process ID	Start Date	Completion Date	Nature & Cause of Malfunction (if any)	Corrective Actions Taken or Preventative Measures Adopted	Nature of Repairs or Adjustments Made to Inoperable or OOC CMS
Stack Flow	Ultraflow	Stack monitor #1	3/23/2015	3/24/2015	Calibration drift	Manual Recalibration	Manufacturer Recommended Procedure
THC	CAI	Stack monitor #1	6/26/2015	6/27/2015	Calibration drift	Manual Recalibration	Manufacturer Recommended Procedure

3. Indicate the total process operating time during the reporting period. (63.10(c)(13))

Total process operating time (days):

Days in reporting period:	181
Facility total process operating time (days):	169.92
Total days on waste:	165.21
Total days on fuels:	4.71

Section IV – Summary Report – Gaseous and Opacity Excess Emissions and CMS Performance

A. Report Date and Submittal Reporting Period

Indicate the reporting period covered by this submittal and the date of this summary report. (63.10(e)(3)(vi))

Reporting Period beginning date	Reporting Period ending date	Summary Report Date
January 1, 2015	June 30, 2015	July 31, 2015

B. Process Description and Monitoring Equipment Information

Complete the following process description and monitoring equipment information table for each affected source process unit:

Total operating time of affected source during the reporting period (days)
237,908 minutes of unit burning/ retaining hazardous waste; 6,772 minutes on virgin fuels.

Process unit name
Rotary Kiln Incineration System

Process unit description
Rotary kiln and ancillary equipment for combustion of hazardous wastes.

Emission and/or operating parameter limitations specified in the relevant standards
See Table 1 and 2 below.

TABLE 1 – APPLICABLE EMISSIONS STANDARDS

Emissions Parameter	Limit	Citation
Destruction and Removal Efficiency (DRE)	≥99.99%	40 CFR 63.1203(c)(1)
PCDDs/PCDFs	≤0.20 ng/dscm TEQ basis	40 CFR 63.1219(a)(1)(i)
HCl/Cl_2	≤ 32 ppmv dry as HCl	40 CFR 63.1219(a)(6)
Mercury	≤ 130 µg/dscm	40 CFR 63.1219(a)(2)
Semi volatile Metals (SVM)	≤ 230 µg/dscm	40 CFR 63.1219(a)(3)
Low Volatile Metals (LVM)	≤ 92 µg/dscm	40 CFR 63.1219(a)(4)
Totals Hydrocarbons	≤ 10 ppmv	40 CFR 63.1219(a)(5)(ii)
Particulate Matter (PM)	≤ 0.013 gr/dscf or 34 mg/dscm	40 CFR 63.1219(a)(7)

TABLE 2 – OPERATING PARAMETERS

Process Parameter (Tag ID)	Units	Avg. Period	Basis	Limit Prior / After 6/18/15[1]
Minimum Feed Lance Atomization Pressure[2]	Psig	Instant.	Mfg. Rec.	30 / 30
Maximum SCC Pressure (PT-4307 & PT-4308)	In. w.c.	Reference September 4, 2003 letter from US EPA Region 5 concerning this requirement.		
Maximum Temperature at ESP Inlet (TI-6002A/B)	°F	1-hr	CPT	424 / 425.3
Maximum Pumpable Waste Feed Rate (WQI-9000T)	Lb/hr	1-hr	CPT	29,926 / 25,857
Maximum Total Waste Feed Rate (WQI-9000F)	Lb/hr	1-hr	CPT	35,069 / 31,513
Minimum Kiln Temperature (TI-4300A/B)	°F	1-hr	CPT	1,718 / 1,695
Minimum SCC Temperature (TI-4310A/B)	°F	1-hr	CPT	1,747 / 1,710
Maximum Process Gas Flow rate (FI-7510A/B)	Scfm	1-hr	CPT	67,505 / 67,119
Minimum Loc. 1 Carbon Feed Rate (WI-7003)	Lb/hr	1-hr	CPT	

[1] MACT Notice of Compliance submitted 6/18/2015 contained new operating parameter limits.
[2] Each liquid lance has a pressure switch. When the pressure drops below 30 psig on any lance the feed from that lance will be automatically cut off. Tag Ids : PSL-3113 (High BTU), PSL-3123 (Organic), PSL-3143 (Aqueous), PSL-3133 (Sludge), PSL-3153 (Slurry), and PSL-3100A/B (Sludge 2).

Process Parameter (Tag ID)	Units	Avg. Period	Basis	Limit Prior / After 6/18/15[1]
Minimum Loc. 2 Carbon Feed Rate (WI-7002)	Lb/hr	1-hr	CPT	
Minimum Loc. 1 Carbon Feed Pressure (PI-5732)	Psig	1-hr	CPT	3.0 / 3.0
Minimum Loc. 2 Carbon Feed Pressure (PI-7132)	Psig	1-hr	CPT	3.0 / 3.0
Maximum Ash Feed Rate (WQI-9000AH)	Lb/hr	12-hr	CPT	10,333 / 11,180
Minimum Ring Jet Pressure Drop (DPI-7401)	in. w.c.	1-hr	CPT	28.0 / 27.0
Minimum Scrubber (1st and 2nd Packed Bed, combined) Liquid Flow Rate (FQI-7201)	gpm	1-hr	CPT	1,287 / 1,291.7
Minimum Scrubber (Ring Jet) Liquid Flow Rate (FI-7404A/B)	gpm	1-hr	CPT	446 / 494.7
Minimum Scrubber (Ring Jet) Blowdown (FI-7403)	gpm	1-hr	CPT	19.5 / 19.2
Minimum Scrubber (Ring Jet) Tank Level (LIC-7401)	feet	1-hr	CPT	1.7 / 1.7
ESP Parameters	The ESP is operating with all fields available with set points of 45,000 volts and 90 sparks per minute, each field; and minimum current of 100 milliamps, each field (see US EPA letters dated Dec. 10 and Dec. 27, 2003).			
Minimum Scrubber (1st and 2nd Packed Bed, combined) Feed Pressure	in. w.c.	1-hr	Mfg. Rec.	Not Req'd.
Minimum Scrubber (1st and 2nd Packed Bed) Pressure Drop	in. w.c.	1-hr	Mfg. Rec.	1.3 / 1.3
Minimum Scrubber (3rd Stage) Liquid pH (AI-7307A/B)	pH units	1-hr	CPT	7.6 / 7.4
Maximum Total Chlorine Feed Rate (WQI-9000CL)	Lb/hr	12-hr	CPT	2,032 / 2,041
Maximum Total Semi volatile Metals Feed Rate (WQI-9000SV)	Lb/hr	12-hr	CPT	83.2 / 102.2
Maximum Total Low Volatile Metals Feed Rate (WQI-9000LV)	Lb/hr	12-hr	CPT	400 / 400
Maximum Total Pumpable Low Volatile Metals Feed Rate (WQI-9000PLV)	Lb/hr	12-hr	CPT	400 / 400
Maximum Total Mercury Feed Rate (WQI-9000M)	lb/hr	12-hr	CPT	0.14 / 0.33
Stack THC (AI-7850)	ppmv	1-hr	Regulatory Requirement	<10

Monitoring Equipment Information

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Power -ESP Field #1	Environmental Elements Controller	0 – 500 ma	EI-6700	3/17/2015	N/A
Power -ESP Field #2	Environmental Elements Controller	0 – 500 ma	EI-6710	3/17/2015	N/A
Power -ESP Field #3	Environmental Elements Controller	0 – 750 ma	EI-6720	3/17/2015	N/A
Scrubber Second Packed Bed Liquid PH	Electro-Chemical Devices	0 – 14 pH units	AT-7307A	Performed Weekly	± 5% of range
Scrubber Second Packed Bed Liquid PH	Electro-Chemical Devices	0 – 14 pH units	AT-7307B	Performed Weekly	± 5% of range
Scrubber 2nd Packed Bed Differential Pressure	Rosemount Transmitter /Pressure transducer	0 – 8 in w.c.	DPT-7307	3/20/2015	± 2% of range
Pumpable Feed Rate High BTU Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3110	2/19/2015	± 10% of range
Pumpable Feed Rate Organic Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3120	2/19/2015	± 10% of range
Pumpable Feed Rate Sludge Lance	Positive displacement pump (calculation)	0 – 15,000 lb/hr	FT-3130	Not Applicable (calculation)	N/A
Pumpable Feed Rate Aqueous Lance	Micromotion Mass Flow Meter	0 – 10,000 lb/hr	FT-3140	2/19/2015	± 10% of range
Pumpable Feed Rate Slurry Lance	Positive displacement pump (calculation)	0 – 15,000 lb/hr	FT-3150	Not Applicable (calculation)	N/A
Scrubber First Packed bed flow rate	PolySonics Doppler Flow	0 – 1,500 gpm	FT-7204A	2/18/2015	± 10% of range
Scrubber First Packed bed flow rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7204B	2/18/2015	± 10% of range

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Scrubber Second Packed bed flow rate	PolySonics Doppler Flow	0 – 1,500 gpm	FT-7304A	2/18/2015	± 10% of range
Scrubber Second Packed bed flow rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7304B	2/18/2015	± 10% of range
Ring Jet Blow Down	Panametrics Ultrasonic Flow	0 – 500 gpm	FT-7403A	2/18/2015	± 10% of range
Ring Jet Blow Down	Panametrics Ultrasonic Flow	0 – 500 gpm	FT-7403B	2/18/2015	± 10% of range
Scrubber Ring Jet Liquid Flow Rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7404A	2/18/2015	± 10% of range
Scrubber Ring Jet Liquid Flow Rate	Panametrics Ultrasonic Flow	0 – 1,500 gpm	FT-7404B	2/18/2015	± 10% of range
Ring Jet Vessel Level	Rosemount Transmitter/ Pressure	0 – 5 feet	LT-7401A	1/21/2015	± 2% of range
Ring Jet Vessel Level	Rosemount Transmitter/ Pressure	0 – 5 feet	LT-7401B	1/21/2015	± 2% of range
Kiln Inlet Shroud (differential) Pressure (reference to SCC)	Rosemount Pressure transducer	0 - 10 in. w.c.	PDT-4308	3/20/2015	± 2% of range
Kiln Outlet Shroud (differential) Pressure (reference to SCC)	Rosemount Pressure transducer	0 - 10 in. w.c.	PDT-4306	3/18/2015	± 2% of range
Kiln Inlet Shroud Pressure (reference to ambient)	Rosemount Pressure transducer	0 - 10 in. w.c.	PT-4307	3/18/2015	± 2% of range
Scrubber 1st Packed Bed Differential Pressure	Rosemount Transmitter /Pressure transducer	0 – 8 in w.c.	PDT-7207	3/20/2015	± 2% of range
Ring Jet Differential Pressure	Rosemount Transmitter/ Pressure	0 – 40 in w.c. (changed 2005)	PDT-7401A PDT-7405A	3/20/2015	± 2% of range

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Ring Jet Differential Pressure	Rosemount Transmitter/ Pressure	0 – 40 in w.c. (changed 2005)	PDT-7401B PDT-7405B	3/20/2015	± 2% of range
Sludge 2 Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3100A	7/24/2014	± 5% of range
Sludge 2 Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3100B	4/18/2015	± 5% of range
High Btu Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3113	4/18/2015	± 5% of range
Organic Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3123	4/18/2015	± 5% of range
Sludge Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3133	4/18/2015	± 5% of range
Aqueous Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3143	4/18/2015	± 5% of range
Slurry Lance Atomizing Pressure	Generic pressure switch	0 – 50 psi	PSL-3153	4/18/2015	± 5% of range
Kiln / Secondary Combustion Chamber Pressure	Rosemount Transmitter / Pressure transducer	-3.5 - +2.5 in. w.c.	PT-4300A	3/18/2015	± 2% of range
Kiln / Secondary Combustion Chamber Pressure	Rosemount Transmitter / Pressure transducer	-3.5 - +2.5 in. w.c.	PT-4300B	3/18/2015	± 2% of range
Spray Dryer Carbon Carrier Fluid Pressure	Rosemount Transmitter / Pressure	0 – 15 psi	PT-5732	3/18/2015	± 2% of range
Scrubber Carbon Carrier Fluid Pressure	Rosemount Transmitter / Pressure	0 – 15 psi	PT-7132	3/18/2015	± 2% of range
ESP Inlet Temperature	Rosemount Transmitter / Thermocouple	0 - 600 °F	TT-6002A	WFCO Test done every 3 weeks	± 2% of range

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
ESP Inlet Temperature	Rosemount Transmitter / Thermocouple	0 - 600 °F	TT-6002B	WFCO Test done every 3 weeks	± 2% of range
Kiln Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4300A	8/21/2014	± 1% of range
Kiln Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4300B	4/9/2015	± 1% of range
Secondary Combustion Chamber Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4310A	2/17/2015	± 1% of range
Secondary Combustion Chamber Temperature	Land CD1 Thermometer	752 – 3272 °F	TT-4310B	9/25/2014	± 1% of range
Pumpable Feed Rate Direct Drum Scale A	Generic Load Cell (Loss in weight calculation)	0 – 5,000 lb	WT-3050	6/13/2015	± 3% of range
Pumpable Feeds Direct Drum Scale B	Generic Load Cell (Loss in weight calculation)	0 – 5,000 lb	WT-3055	6/13/2015	± 3% of range
Pumpable FeedsTanker Scale A (South Bay)	Generic Load Cell. Loss in weight calculation	0 – 80,000 lb	WT-3060	6/13/2015	± 3% of range
Pumpable Feeds Tanker Scale B (East Bay)	Generic Load Cell. Loss in weight calculation	0 – 100,000 lb	WT-3065	6/13/2015	± 3% of range
Conveyor Scale Drum Processing	Generic Load Cell (Scale)	0 – 2,000 lb	WT-3070 ARTS Data	6/13/2015	± 3% of range
Splitting Scale Drum Processing	Generic Load Cell (Scale)	0 – 5,000 lb	WT-3075 ARTS Data	6/13/2015	± 3% of range
Floor Scale Drum Processing Lab Pack	Generic Load Cell (Scale)	0 – 2,000 lb	WT-3080 ARTS Data	6/13/2015	± 3% of range
Kiln Bulk Feed Crane	Generic Load Cell (Scale)	0 – 10,000 lb	WT-3105	6/13/2015	± 3% of range

Monitored Parameter	Instrument Description	Range and Units of Measurement	Tag Number	Last Calibration/Audit Date	Accuracy of Measurement
Scrubber Carbon Feed Rate	Generic Load Cell / Loss in Weight Feeder	0 – 50 lb/hr	WT-7002	6/13/2015	± 1% of range
Spray Dryer Carbon Feed Rate	Generic Load Cell / Loss in Weight Feeder	0 – 50 lb/hr	WT-7003	6/13/2015	± 1% of range
Total Hydrocarbon Analyzer (Stack)	California Analytical Instruments, Inc.	0 – 100 ppm 0 – 500 ppm as Propane	AI-7850A	5/28/2015	£ ± 5% of span
Total Hydrocarbon Analyzer (Stack)	California Analytical Instruments, Inc.	0 – 100 ppm 0 – 500 ppm as Propane	AI-7850B	5/28/2015	£ ± 5% of span
Stack Oxygen Analyzers (dry)	Ametek	0 – 25 %	AI-7860A	5/28/2015	± 1.0% Oxygen
Stack Oxygen Analyzers (dry)	Ametek	0 – 25 %	AI-7860B	5/28/2015	± 1.0% Oxygen
Stack Oxygen Analyzers (wet)	Ametek	0 – 25 %	AI-7865A	5/28/2015	± 1.0% Oxygen
Stack Oxygen Analyzers (wet)	Ametek	0 – 25 %	AI-7865B	5/28/2015	± 1.0% Oxygen
Flue Gas Flow Rate (Scrubber Outlet)	Calculation Stack - Reheat Flow	0 – 80,000 scfm	FT-7510A	5/28/2015	< 15% relative accuracy or < 7.5% of the applicable standard
Flue Gas Flow Rate (Scrubber Outlet)	United Sciences UltraSonic Gas Flow	0 – 80,000 scfm	FT-7510B	5/28/2015	< 15% relative accuracy or < 7.5% of the applicable standard
Flue Gas Flow Rate (Stack)	United Sciences UltraSonic Gas Flow	0 – 100,000 scfm	FT-7805A	5/28/2015	< 15% relative accuracy or < 7.5% of the applicable standard
Flue Gas Flow Rate (Stack)	Calculation Process + Reheat Flow	0 – 100,000 scfm	FT-7805B	5/28/2015	< 15% relative accuracy or < 7.5% of the applicable standard

C. Emission Data Summary

Complete the following emission data summary table for each affected source: (63.10(e)(3)(vi)(l))

Total duration of excess emission / parameter exceedances (minutes for opacity, hours for gases)

Excess Emissions	Total Duration(min)	Total Operating time of affected source during the reporting period (min)	% Of total source operating time during which excess emissions occurred
Maximum Ash Feed Rate (WQI-9000AH)	0	244,680	0.00%
Maximum Process Gas Flowrate (FI-7510A/B)	0	244,680	0.00%
Maximum Pumpable Waste Feed Rate (WQI-9000T)	0	244,680	0.00%
Maximum SCC Pressure (PI-4300A/B)	307.7	244,680	0.13%
Maximum Temperature at ESP Inlet (TI-6002A/B)	0	244,680	0.00%
Maximum Total Chlorine Feed Rate (WQI-9000CL)	0	244,680	0.00%
Maximum Total Low Volatile Metals Feed Rate (WQI-9000LV)	0	244,680	0.00%
Maximum Total Mercury Feed Rate (WQI-9000M)	0	244,680	0.00%
Maximum Total Pumpable Low Volatile Metals Feed Rate (WQI-9000PLV)	0	244,680	0.00%
Maximum Total Semi volatile Metals Feed Rate (WQI-9000SV)	0	244,680	0.00%
Maximum Total Waste Feed Rate (WQI-9000F)	0	244,680	0.00%
Minimum Feed Lance Atomization Pressure	0	244,680	0.00%
Minimum Kiln Temperature (TI-4300A/B)	1125.6	244,680	0.46%
Minimum Loc. 1 Carbon Feed Pressure (PI-5732)	504.5	244,680	0.21%
Minimum Loc. 2 Carbon Feed Pressure (PI-7132)	258.8	244,680	0.11%
Minimum Loc. 1 Carbon Feed Rate (WI-7003)	168	244,680	0.07%
Minimum Loc. 2 Carbon Feed Rate (WI-7002)	0.5	244,680	0.00%
Minimum Ring Jet Pressure Drop (DPI-7401)	1300.3	244,680	0.53%
Minimum SCC Temperature (TI-4310A/B)	1283.5	244,680	0.52%

Excess Emissions	Total Duration(min)	Total Operating time of affected source during the reporting period (min)	% Of total source operating time during which excess emissions occurred
Minimum Scrubber (1st and 2nd Packed Bed) Pressure Drop	555.4	244,680	0.23%
Minimum Scrubber (1st and 2nd Packed Bed, combined) Liquid Flow Rate (FQI-7201)	328	244,680	0.13%
Minimum Scrubber (3rd Stage) Liquid pH (AI-7307A/B)	8.4	244,680	0.00%
Minimum Scrubber (Ring Jet) Blowdown (FI-7403)	418.1	244,680	0.17%
Minimum Scrubber (Ring Jet) Liquid Flow Rate (FI-7404A/B)	674.8	244,680	0.28%
Minimum Scrubber (Ring Jet) Tank Level (LIC-7401)	0	244,680	0.00%
THC	1946.1	244,680	0.80%
ESP Controls	434.7	244,680	0.18%
Total Duration	**9314.4**	244,680	**3.81%**

Summary of causes of excess emissions / parameter exceedances (% of total duration by cause):

TYPE	Sum Of Duration	% of Total Duration
Startup/shutdown	3929.1	42.18%
Control Equipment Problems	3733.4	40.08%
Process Problems	470.1	5.05%
Other unknown causes	244.70	2.63%
Other known causes	937.00	10.06%
	9314.30	100.00%

D. CMS Performance Summary

Complete the following CMS performance summary table for each affected source: (63.10(e)(3)(vi)(J))

Total duration of CMS downtime[1]
0 minutes

Total operating time of affected source during the reporting period
244,680 min

Percent of total source operating time during which CMS were down
0.00 %

[1] Heritage Thermal Services maintains redundant CMS equipment in most cases to prevent CMS downtime. There were no periods during this time that this redundancy did not prevent CMS downtime.

Summary of causes of CMS downtime (percent of downtime by cause)	Minutes
Monitoring equipment malfunctions	0
Non-monitoring equipment malfunctions	0
Quality assurance / quality control calibrations	0
Other known causes	0
Other unknown causes	0

E. CMS, Process, or Control Changes

1. Have you made any changes in CMS, processes, or controls since the last reporting period?
   ☐ Yes ☒No (if no, end of form) (63.10(2)(3)(vi)(K))

2. If you answered yes, please describe the changes below:

END OF REPORT

bcc: Env. Dept
Stewart Fletcher
Bob Buchheit
Kevin Lloyd

file name: environ/MACT/HWC MACT/exceedances/semiannual2015a

ECF: 2015/MACT/ Semiannual A